ATTACHMENT 13 – MEMO TO FILE: KURT HANSEN, USCG, MAY 21, 2008

NTSB
National Transportation Safety Board
490 L'Enfant Plaza, SW
Washington, DC 20594-0001
www.ntsb.gov

May 21, 2008

Memo to File

File: Cosco Busan Allision with San Francisco-Oakland Bay Bridge
NTSB No.: DCA08MM004

Re: US Coast Guard Aerial Remote Sensing Capabilities.

On 5/21/08, I contacted Kurt Hansen, Spill Response Program Manager for the U.S. Coast Guard Research and Development Center, Groton CT (860-441-2865). Mr. Hansen was identified in the R&D Center's reports conducted on aerial sensing methods as the Center's technical point of contact. Mr. Hansen provided me the following information:

Coast Guard aircraft are not outfitted with sensors that are dedicated solely for the remote sensing of oil spills, unlike the aircraft employed by European nation participants to the Bonn Agreement. At the time of the Cosco Busan incident, the Coast Guard possessed two North Carolina-based C-130 aircraft equipped with SLAR remote sensing systems capable of detecting and mapping oil spills at night and during adverse weather conditions. The ability of these aircraft to detect oil in harbors is diminished by interferences caused by such factors as wind shadowing and seaweed beds. In order to detect oil with the Coast Guard's SLAR technology, wind speed over the water surface must exceed 5 knots in order to generate capillary waves necessary to reflect the radar signal. The circumstances of the Cosco Busan incident would not have been ideal for deployment of these aircraft because of wind shadowing interferences caused by the harbor topography, the lack of wind as evidenced by the fog on Day 1, and the crowded airspace nearby the San Francisco and Oakland airports.

The Coast Guard also has thermal IR and visual imaging capability on many of its HH65 helicopters, long-range HC-130 aircraft and medium-range jets. This equipment is primarily used for search and rescue and law enforcement missions, but could also be capable of observing oil slicks in fair weather and light precipitation conditions. The Coast Guard may soon discontinue the use of SLAR since the equipment is getting old and is not supportable. Some of the Coast Guard's next generation airborne radars will have a similar "strip SAR" mapping capability to replace the SLAR functionality.

On March 11, 2008, the Coast Guard Acquisition Directorate announced the replacement of its aging fleet of HU-25 aircraft with the acquisition of the first of 36 planned purchases of medium range HC144A Ocean Sentry surveillance aircraft equipped with updated radar and IR sensors. In addition to its marine environmental protection mission, the HC144A's will fulfill roles in international ice patrol, surveillance, search and rescue, law and treaty enforcement, interdiction, and transport. Although a marine environmental protection mission is amongst the roles advertised for the HC144A's, its remote sensing instruments are not yet been certified for use in oil spill detection and mapping.

Mr. Hansen directed me to Gary Hover (860-441-2818) of the Coast Guard R&D Center for additional information on the status of the new HC144A aircraft aerial sensor capability.

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